

## CLAIMS

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1. A method for network management, comprising:  
    sending a trap message from a network end switch to client premises equipment (CPE) over a network connection therebetween, informing the CPE of a change in a network management information base (MIB) of the end switch;  
    receiving a request from the CPE to the end switch, subsequent to the trap message, to read information from the MIB;  
    providing the information from the end switch to the CPE responsive to the request; and  
    determining the change to have been implemented by the CPE based on the request to read the information.
  2. A method according to claim 1, wherein the CPE replaces old information recorded in a user MIB of the CPE with the information provided from the end switch.
  3. A method according to claim 2, wherein the CPE replaces the old information with the provided information substantially in its entirety, without parsing the information for changes.
  4. A method according to claim 1, wherein receiving the request comprises awaiting the request for a predetermined period of time, and wherein sending the trap message comprises re-sending the trap message if the request is not received within the predetermined period.
  5. A method according to claim 4, wherein re-sending the trap message comprises making a predetermined number of attempts to re-send the trap message, and comprising sending a cold start message from the end switch to the CPE to reset the connection if the request is not

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received after the predetermined number of attempts have been made.

6. A method according to claim 1, wherein the network connection comprises an Asynchronous Transfer Mode (ATM) network connection.

7. A method according to claim 6, wherein sending the trap message comprises sending an ATM Integrated Local Management Interface (ILMI) trap message.

8. A method according to claim 7, wherein the trap message comprises a virtual channel connection (VCC) trap.

9. A method according to claim 7, wherein the trap message comprises a virtual path connection (VPC) trap.

10. A method according to claim 6, wherein the network end switch comprises an access multiplexer, and wherein the CPE comprises one of a plurality of client equipment installations serviced by the multiplexer.

11. A method according to claim 10, wherein the access multiplexer comprises a Digital Subscriber Line Access Multiplexer (DSLAM).

12. A method according to claim 11, wherein the DSLAM is adapted to service at least one hundred of the client equipment installations.

13. A method according to claim 1, wherein sending the trap message comprises sending multiple trap messages regarding multiple changes in the MIB, and wherein receiving the request comprises receiving multiple read requests from the CPE to read the information from the MIB, each such read request subsequent to a respective one of the trap messages, and

wherein determining the change to have been implemented comprises verifying, responsive to the requests, that all of the changes have been implemented without the CPE having polled the end switch for further trap messages.

14. Network access multiplexing apparatus, comprising:

a plurality of interface connections, linking the apparatus to client premises equipment (CPE) at multiple client premises, so as to provide access via the apparatus to a high-speed network;

a memory, adapted to store a network management information base (MIB); and

a management processor, adapted to send a trap message to the CPE over one of the interface connections therebetween informing the CPE of a change in the MIB, to receive a request from the CPE subsequent to the trap message to read information from the MIB, to provide the information to the CPE responsive to the request, and to determine the change to have been implemented by the CPE based on the request to read the information.

15. Apparatus according to claim 14, wherein the processor is adapted to await the request for a predetermined period of time, and to re-send the trap message if the request is not received within the predetermined period.

16. Apparatus according to claim 15, wherein the processor is adapted to re-send the trap message a predetermined number of times, and to send a cold start message to the CPE to reset the connection therebetween if the request is not received after the trap message has been re-sent the predetermined number of times.

17. Apparatus according to claim 14, wherein the interface connections comprise Asynchronous Transfer Mode (ATM) network connections.

18. Apparatus according to claim 17, wherein the trap message comprises an ATM Integrated Local Management Interface (ILMI) trap message.

19. Apparatus according to claim 18, wherein the trap message comprises a virtual channel connection (VCC) trap.

20. Apparatus according to claim 18, wherein the trap message comprises a virtual path connection (VPC) trap.

21. Apparatus according to claim 14, wherein the interface connections comprise Digital Subscriber Line (DSL) connections, and wherein the apparatus comprises a Digital Subscriber Line Access Multiplexer (DSLAM).

22. Apparatus according to claim 21, wherein the DSLAM is adapted to service at least one hundred of the client equipment installations.

23. Apparatus according to claim 14, wherein the trap message comprises multiple trap messages, and wherein the request comprises multiple requests from the CPE to read the information from the MIB, each such request subsequent to a respective one of the trap messages, and

wherein the management processor is adapted to verify, responsive to the read requests, that all of the changes have been implemented, without the CPE having polled the processor for further trap messages.

24. Client premises equipment (CPE), which is adapted to receive a trap message from a network end switch over a network connection therebetween, informing the CPE of a

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change in a network management information base (MIB) of the end switch, and responsive to the trap message, to read information from the MIB without polling the end switch for further trap messages.

25. Equipment according to claim 24, wherein the CPE maintains a user MIB, and is adapted to replace old information recorded in the user MIB with the information read from the end switch.

26. Equipment according to claim 25, wherein the CPE is adapted to replace the old information with the read information substantially in its entirety, without parsing the information for changes.

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